



MIAMI BEACH

OFFICE OF THE CITY MANAGER

NO. LTC # 024-2006

LETTER TO COMMISSION

TO: Mayor David Dermer and Members of the City Commission

FROM: Jorge M. Gonzalez, City Manager

DATE: January 24, 2006

SUBJECT: **HURRICANE WILMA STATUS REPORT**

The purpose of this LTC is to provide you with a ninety day report on the status of recovery efforts from damage suffered as a result of Hurricane Wilma on October 24, 2005.

The Hurricane struck South Florida with significant winds and rain. The duration of the storm was approximately four hours after which Miami Beach was left without electrical power, significant tidal surge flooding and major tree damage. The initial recovery effort was concentrated on clearing of right-of-ways and restoration of services.

Since October 24th significant progress has been made to restore Miami Beach to its pre-storm condition. This progress includes:

Debris Management - An estimated 150,000 cubic yards of debris was generated by the storm. City crews commenced work cutting and stacking fallen trees within hours of the storm's passing and pick-up crews commenced work two days later. The majority of the clean-up (two courtesy pick-ups) was completed by Thanksgiving Day weekend.

Approximately 150,000 cubic yards of hurricane debris were removed from City right-of-ways and parks by City and contractor crews. The collected debris was transferred to a Staging and Reduction Center established at the east end of the Julia Tuttle Causeway. The Public Works Department through AshBritt, the City's emergency contractor, completed the processing of the approximately 150,000 cubic yards of debris at the Reduction Center. An estimated 2,500 cubic yards per day was grounded and reduced to mulch using large capacity track grinders. At the height of the debris removal three track grinders were operating at the reduction center. The mulch was disposed of as ground cover at farms in the south Miami Dade County and to sugar mills to be used as fuel. Averages of forty (40) trips per day, using 100 cubic yard trucks, were made to disposal sites. The reduction site will remain open through January 2006 to handle the processing and disposal of stumps.

About 1,000 stumps throughout the city were the results of fallen trees in city right-of-way or parks. The stumps must be individually inspected by FEMA prior to removal and disposal. This is a time consuming process which is controlled by FEMA. The process began on Monday, January 10th and took FEMA 2 weeks to complete. Approximately 60% have been removed. When possible the stumps are ground into mulch on site. The larger stumps are transported to the reduction site, split and ground down using the track grinder. It is anticipated that the stump disposal will be completed during the first week of February 2006.

The total debris clean-up expense is estimated to be \$3.5 Million.

Tree Damage. Approximately 1,500 trees were destroyed during the storm. An estimated 99% of the fallen trees have been removed. Approximately 1,200 trees were damaged. The

damage was in the form of broken branches or exposed roots. Approximately 98% of the branches along the right-of-ways have been removed and most of the branches in the parks have been removed for disposal.

County Maintained Facilities

City Staff continues to press the County for completion of the placement/repair of traffic signals, traffic signs, and street lights; however, due to the magnitude of hurricane damage throughout the County the response for non-critical items is, at times, slow to come.

- **Traffic Signals** - All traffic signal controlled intersections have at least one fully operational traffic signal. Miami Dade County reports that the traffic signal system has been restored to pre-hurricane condition and the County estimates that 99% of the traffic signals are fully operational. The County has also started a program to harden existing traffic signals for the next hurricane season.
- **County Maintained Streetlights** - The County maintains streetlights on FDOT (Alton Road, 5th Street, Causeways, Collins Avenue, 71st Street, Harding Avenue, and Indian Creek) and County (Dade Boulevard, La Gorce Drive, and Pine Tree Drive) right-of-ways. Most of the streetlights in these right-of-ways have been repaired.
- **Traffic Signs** - All missing or damaged stop signs were replaced/repared in the first week after the hurricane. The replacement of other non-directional and non-critical signs such as parking signs and/or street signs is proceeding at a slower rate. Miami-Dade County is concentrating on school zones and pedestrian crossing signage and then traffic control signs. The City is assisting the Miami-Dade County crews in straightening and replacing signs throughout the City. It is estimated that 60% of the signs have been straightened or replaced. Estimated completion for all signs is 90 days.

City Facilities

The total damage to City buildings and facilities is estimated to be in the excess of \$1.5 million.

- **Roofs** were severely damaged and will be replaced at the North Shore Community Center and at the Sanitation Division Facility at Terminal Island.
- The **Tennis Center** at Flamingo Park suffered significant damage with total loss of concrete light poles and fixtures, and major damage to the clay courts. Seventeen of the nineteen courts have been fully repaired.
- Eleven of the twenty-six **lifeguard stands** were completely damaged. Three had severe damage and the remaining twelve had minor damage. Total replacement and repair cost is estimated to be \$450,000; construction of replacement stands is on the way.
- A significant number of perimeter **fences** primarily in parks and recreational fields were damaged and have been replaced/repared. All other repairs that are not of an emergency nature will be completed in the next six months.
- **Pump Stations**. All electrical power was lost to the pump stations. Most had back-up generators. Portable generators were obtained to power those not equipped with back-up capability. No loss of water or sewer service was experienced by Miami Beach residents and businesses. All pump stations were fully operational on permanent electrical power within 7 days of the storm.
- **Water** - Two water main breaks were experienced as a result of the storm. A main ruptured at 5th Street and Alton Road due to excessive surge pressure supplied by the County. A primary water main at the Venetian Causeway was damaged by a sail boat that had broken from its moorings and was lodged beneath a bridge. The Alton Road break was repaired within hours. The Venetian Causeway location has been

bypassed and repairs are expected to be completed by the end of January. Minor water system breaks caused by uprooted trees were experienced in four other locations. They were repaired within hours of the storm's passing.

- **Streetlights** - Over 300 City owned streetlights were damaged or destroyed during the storm. The normal spare fixtures and repair parts maintained in inventory have been exhausted. Orders have been placed for additional parts and fixtures. Delivery time is estimated at 6–8 weeks. Lights on the Boardwalk have been partially repaired; circuits in parks and most of the parking lots have been restored. Sunset Islands 1, 2, & 3 suffered extensive damage and 75% of the fixtures have been repaired. The remainder will be repaired when the parts and fixtures on order are received. Once the ordered parts and fixtures arrive it is anticipated that repairs will take approximately 12 weeks to complete.

Beach – The beach experienced significant loss of sand both through erosion into the Atlantic Ocean and through inland wave action. The worst areas are beaches along 29th, 45th, 55th, and 63rd Streets. Miami Dade County is responsible for beach restoration. The Public Works Department is working closely with the County and City lobbyists to expedite the permitting of a beach renourishment project for 45th and 55th Streets.

The dune system performed as designed, protecting upland structures and buildings. The dunes themselves were damaged by wave action and the vegetation was covered in displaced sand but recovery is expected to occur naturally.

Canals - Initial removal of storm debris commenced December 1, 2005 and was completed by December 16, 2005 using contractor services. Areas of debris concentration included Collins Canal, Allison Island, Biscayne Point and Sunset Islands.

Seawalls. The City has ninety-nine (99) publicly owned seawalls. Twenty of these will require repairs. It is estimated that the replacement or major repair work should be accomplished within the next 90 days. An additional thirty walls will require significant repair and restoration. The repair and restoration will be a long term project.

Derelict Vessels – Following the storm there were approximately seventy-six (76) derelict or sunken vessels within the City's waterways. Ten (10) have been removed by the City. An additional two boats were removed within the following week. The balance of the boats have already been removed by their owners.

Electricity – Florida Power and Light representatives were assigned to our Emergency Operations Center (EOC) during the week following the storm. The City had 98% of the electricity restored within five days. FPL continues to work on solving individual electrical problems that arise as a result of storm damage to infrastructure from fallen trees.

Hurricane Wilma was a significant emergency management event for the City that represented a good test of the City's emergency response capability. The City's Emergency Operations Plan has evolved and improved over recent years, however we have fortunately had only limited opportunities to conduct large scale recovery operations. In this hurricane the City was in full emergency activation. The Emergency Operation Center (EOC) was activated and directed and coordinated recovery operations. The plan and the EOC staff personnel performed very well and were successful in dealing effectively both with anticipated actions and more importantly the unanticipated occurrences from the hurricane. Very often the EOC personnel found that questions raised and addressed were well ahead of other outside agencies and in some key areas, unsafe structures and the associated housing need for example, the City led the entire County in our response and proactive approach.

All of the City field personnel worked long hours and very effectively as a team to address recovery issues. Outside contracted resources were heavily utilized and integrated into the City overall response.

Through proper planning and training the City was ready to prepare, respond and recover from the effects of a major storm. The City was able to open for regular business within 7 days after Hurricane Wilma struck South Florida.

The Administration has already conducted an event debrief to capture ideas and lessons learned from our response actions. The knowledge and insight gained is being added to our plan to further improve our capabilities in this very important service area for our community.

If you have questions or require further information, please contact me.

JMG\RCM\sam
F:\cmgr\ALL\BOB\wilmalte1.doc

RECEIVED
06 JAN 26 PM 2:52
CITY CLERK'S OFFICE